DDTMA solution with similar condition for the experiments of high concentrated sample were evaluated. To avoid possible contamination from the sample transfer line and electrospray emitter by the previous 4.0 uM DDTMA sample, all sample handling components (i.e. transfer line and emitter) were replaced for these experiments, and performance verified using a "blank" sample and by the absences of a peak at m/z 228.3 u. **FIG. 5** shows the spectrum obtained for a 4.0 nM DDTMA sample using a 3.0 uL/min infusion rate. Based upon the analyte molecular infusion rate (1.2×10^{8} molecules/sec) and the sum of detected signals (ion count rates) for two isotopic peaks (3.5×10^{6} cps), the overall detection efficiency was 2.9%. When we consider the extended beam path (Q2 and Q3) in the spectrum measurement with low concentration sample, this detection efficiency is in a good agreement with that obtained by ion current measurements using higher concentration samples (3.5±0.2%). These results verify the high efficiency of the present interface and clearly indicate the direction of efforts for further improvements.

We claim:

1. A method for introducing charged particles into a device comprising the steps of:

a) generating ions in a relatively high pressure region external to the device and proximate to a plurality of apertures extending into the device, and

b) providing the interior of said device at a relatively low pressure, thereby causing the ions to move through the plurality of apertures and into the device.

2. The method of claim 1 wherein the device is provided as a mass spectrometer.

3. The method of claim 1 further comprising the step of providing an ion funnel to receive ions at the interior of the device and adjacent to the plurality of apertures.

4. The method of claim 1 wherein said relatively high pressure region is at between 10^{-1} millibar and 1 bar

5. The method of claim 1 wherein the plurality of apertures are provided as six apertures formed in a circle about a seventh aperture.

6. The method of claim 1 wherein the plurality of apertures are provided as six capillaries formed in a circle about a seventh capillary.

7. The method of claim 6 wherein the capillaries are provided as stainless steel.

8. The method of claim 7 wherein the stainless steel capillaries are provided as extending through a stainless steel heating block.

9. The method of claim 8 wherein the stainless steel heating block is maintained at a temperature between 100° C. and 350° C.

10. The method of claim 8 wherein the stainless steel heating block is maintained at a temperature of about 200° C.

11. The method of claim 1 wherein the charged particles are generated with an electrospray ion source.

12. An apparatus for introducing charged particles generated at a relatively high pressure region into a device whose interior is maintained at a relatively low pressure region comprising a plurality of apertures extending into the device, whereby charged particles generated in the relatively high pressure region move through the plurality of apertures and into the device.

13. The apparatus of claim 12 wherein the device is a mass spectrometer.

14. The apparatus of claim 12 further comprising providing an ion funnel to receive ions at the interior of the device and adjacent to the plurality of apertures.

15. The apparatus of claim 12 wherein said relatively high pressure region is at between 10^{-1} millibar and 1 bar

16. The apparatus of claim 12 wherein the plurality of apertures are six apertures formed in a circle about a seventh aperture.

17. The apparatus of claim 12 wherein the plurality of apertures are six capillaries formed in a circle about a seventh capillary.

18. The apparatus of claim 17 wherein the capillaries are stainless steel.

19. The apparatus of claim 18 wherein the stainless steel capillaries extend through a stainless steel heating block.

20. The apparatus of claim 12 further comprising an electrospray ion source interfaced with the plurality of apertures.

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